

DECLARATION AND POWER OF ATTORNEY U.S.A.

FOR ATTORNEY'S USE ONLY

ATTORNEY'S DOCKET NO. P67415US0

ALL PATENTS, INCLUDING DESIGN

FOR APPLICATION BASED ON PCT, PARIS CONVENTION;

NON PRIORITY; OR PROVISIONAL APPLICATIONS

As a below named inventor, I declare that my residence, post office address and citizenship are stated below next to my name, the information given herein is true, that I believe that I am the original, first and sole inventor (if only one name is listed at 201 below), or an original, first and joint inventor (if plural inventors are named below at 201-203, or on additional sheets attached

which is described and claimed in:	PCT International Application No.		filed	
the attached specification	the specification in application Serial 1	No.	filed	
	(If applicable) and amended on			
I hereby state that I have reviewed a	and understand the contents of the above-ide	entified specification, including the claims, as	s amended by any amendr	nent referred to above.
1 hereby claim foreign priority benefits	iformation which is material to patentability as s under Title 35, United States Code, 119 (a) inventors certificate having a filing date before	-(d) of any foreign applications) for patent	or inventor's certificate liste	ed below and have also identified b
Prior Foreign Application(s)			Priority	Claimed
2001 - 72225	Republic of Korea	20/NOV./2001		
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No
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(Number)	(Country)	(Day/Month/Year Filed)	Yes	No
	the state of the s			
hereby claim the benefit under Title	e 35, United States Cod, 119(e) of any United	States provisional application(s) listed belo	ων.	
Application No.	Filing Date Ap 35, United States Code, 120 of any United	pplication No. d States applications) listed below and, insc	Filing Dale	of each of the claims of this applice
Application No. It hereby claim the benefit under Title is not disclosed in the prior United S	Filing Date A	pplication No. d States applications) listed below and, insche first paragraph of Title 35, United States	Filing Dale ofar as the subject matter of Code, 112, 1 acknowledge	e the duty to disclose information
Application No. I hereby claim the benefit under Title is not disclosed in the prior United S material to patentability as defined	Filing Date Applications and Filing Date Application in the manner provided by the Title 37, Code of Federal Regulations, 1.50	pplication No. d States applications) listed below and, insche first paragraph of Title 35, United States	Filing Dale plar as the subject matter as Code, 112, 1 acknowledge date of the prior applicat	e the duty to disclose information
Application No. I thereby claim the benefit under Title in not disclosed in the prior United S is material to patentability as defined mining date of this application. (Application Serial Notes of ATTORNEY: As a gions from my agent, and transplaced on the prior to the prior t	Filing Date Applications and Filing Date Application in the manner provided by the Title 37, Code of Federal Regulations, 1.50	poplication No. d States applications) listed below and, inso the first paragraph of Title 35, United States 6 which became available between the film (Filing Date) e following attorneys (Registration Trademark Office connected therew, MARVIN R. STERN (20,640)	ofar as the subject matter of a Code, 112, 1 acknowledge g date of the pnor application (Status: pate No.) to prosecute this fith. HARVEY B.; MICHAEL R. SL	e the duty to disclose information ion and the national or PCT intermined, pending, abandoned) application, receive and act [ACOBSON, JR. (20,851); OBASKY (26,421);
Application No. I thereby claim the benefit under Title in not disclosed in the prior United S is material to patentability as defined mining date of this application. (Application Serial Notes of ATTORNEY: As a gions from my agent, and transplaced on the prior to the prior t	Filing Date Ag 35, United States Code, 120 of any United tates application in the manner provided by the in Title 37, Code of Federal Regulations, 1.50 named inventor, I hereby appoint the sact all business in the Patent and An CLARKE HOLMAN (22,769), 851); IRWIN M. AISENBERG (polication No. d States applications) listed below and, insome first paragraph of Title 35, United States 6 which became available between the film (Filing Date) e following attorneys (Registration Trademark Office connected therew, MARVIN R. STERN (20,640) 19,007); WILLIAM E. PLAYER DIRECT TELEPH	Filing Dale ofar as the subject matter of Code, 112, 1 acknowledge g date of the pnor application (Status: pate No.) to prosecute this ith. HARVEY B.; MICHAEL R. SL. (31,409); YOON	e the duty to disclose information ion and the national or PCT intermined, pending, abandoned) application, receive and act [ACOBSON, JR. (20,851); OBASKY (26,421); S. HAM (45,307)
Application No. I hereby claim the benefit under Title in not disclosed in the prior United S material to patentability as defined filling date of this application: (Application Serial Note: (Application Ser	Filing Date Ag 35. United States Code, 120 of any United tates application in the manner provided by the in Title 37, Code of Federal Regulations, 1.50 20.) named inventor, I hereby appoint the pact all business in the Patent and Ain Clarke Holman (22,769), 851); IRWIN M. AISENBERG (TO: 1, PRICE, HOLMAN & STERN	polication No. d States applications) listed below and, insome first paragraph of Title 35, United States 6 which became available between the film (Filing Date) e following attorneys (Registration Trademark Office connected therew, MARVIN R. STERN (20,640) 19,007); WILLIAM E. PLAYER DIRECT TELEPH (please use A	ofar as the subject matter of a Code, 112, 1 acknowledge date of the pnor application (Status: pate No.) to prosecute this rith. HARVEY B.; MICHAEL R. SL. (31,409); YOON HONE CALLS TO:	e the duty to disclose information from and the national or PCT intermined, pending, abandoned) application, receive and act JACOBSON, JR. (20,851); OBASKY (26,421); S. HAM (45,307)
Application No. I thereby claim the benefit under Title in not disclosed in the prior United S in material to patentability as defined fitting date of this application: (Application Serial Notes of ATTORNEY: As a gions from my agent, and transplaced of the serial Notes of the serial	Filing Date Ag 35. United States Code, 120 of any United tates application in the manner provided by the in Title 37, Code of Federal Regulations, 1.50. D.) named inventor, I hereby appoint the sact all business in the Patent and MIN CLARKE HOLMAN (22,769), 851); IRWIN M. AISENBERG (TO:	polication No. d States applications) listed below and, insome first paragraph of Title 35, United States 6 which became available between the filter (Filing Date) e following attorneys (Registration Trademark Office connected therew, MARVIN R. STERN (20,640) 19,007); WILLIAM E. PLAYEF DIRECT TELEPH (please use A	Filing Dale ofar as the subject matter of Code, 112, 1 acknowledge g date of the pnor application (Status: pate No.) to prosecute this ith. HARVEY B.; MICHAEL R. SL. (31,409); YOON	e the duty to disclose information from and the national or PCT intermined, pending, abandoned) application, receive and act JACOBSON, JR. (20,851); BASKY (26,421); S. HAM (45,307) 638-6666 OLMAN & STERN

	FULL NAME	FAMILY NAME	GIVEN NAME		MIDDLE NAME	
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]	FULL NAME	FAMILY NAME	GIVEN NAME		MIDDLE NAME	
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	POST OFFICE	POST OFFICE ADDRESS 105 DACON Institute	CITY	STATE OF COUNTR	Y .	
	ADDRESS	34 Kajong-Dong, Yusong-Gu,	Taejon	ļ I	Corea	

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

statem	ents	were
States	Code	e; an

statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under section 1001 of Title 18 of the United States Code; and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201*	SIGNATURE OF INVENTOR 202*	SIGNATURE OF INVENTOR 203*	
S. Cho	0 30 9		
DATE Dec. 10. 200/	DATE Dec. 10. 200/	DATE DEC. 10. 200/	

 \square Additional inventors are named on separately numbered sheets attached hereto.

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The graph of the course of the

JACOBSON, PRICE, HOLMAN & STERN

PROFESSIONAL LIMITED LIABILITY COMPANY THE JENIFER BUILDING 400 SEVENTH STREET, N.W.

WASHINGTON, D.C. 20004

Attny's Docket No.

SMALL ENTITY DECLARATION

[37 CFR 1.9(c-f)]

Each undersigned declares that:		
 (1) ☑ the application attached heret (2) ☐ U.S. Application Serial No. (3) ☐ U.S. Patent No. 	o filed Issued	
is entitled to the benefits of "small entithe Patent and Trademark Office by vi		fees under 35 USC 41(a) and (b) to
(4) 🖾 Each undersigned declares that he/she made the invention, as defined the invention, as defined to the invention of the control of the	-	ependent inventor or would qualify
(5) The undersigned declares the identified below; that this concern quali		ered to act on behalf of the concern on as defined in 37 CFR 1.9(d).
(6) The undersigned declares organization identified below; that this		powered to act on behalf of the profit organization as defined in
(a) ☐ 37 CFR 1.9(e)(1) (b) ☐ 37 CFR 1.9(e)(2) (c) ☐ 37 CFR 1.9(e)(3) (d) ☐ 37 CFR 1.9(e)(4)	State law of	-
(7) Each person, concern or organize or am under an obligation under contrinvention is listed below:		gned, granted, conveved or licensed, onvey, or license any rights in the
 (a) no such person, concern (b) persons, concerns or orga [a separate declaration is required from to this invention averring to their 	nizations listed below m each named person, concern	or organization having rights
Full Name ELECTRONICS AND T	ELECOMMUNICATIONS RE	SEARCH INSTITUTE
Address 161 Kajong-Dong, Yuson	ng-Gu, Taejon , 305-350, Ko	rea
☐ individual ☐ Sm	nall Business concern	Nonprofit Organization
I/we acknowledge the duty to file. resulting in loss of entitlement of sm earliest of the issue fee or any mainten no longer appropriate. (37 CFR 1.28(b))	all entity status prior to pay	ing, or at the time of paving, the
I/we hereby declare all statements statements made on information and were made with the knowledge that imprisonment, or both, under Section I false statements may jeopardize the valuable which this declaration is directed.	pelief are believed to be true; willful false statements so 1001 of Title 18 of the United	and further that these statements made are punishable by fine or States Code and that such willful
	Signature G. Chro	Date Dec. 10. 2011
_Dong Woo Lee Typed Name of Inventor	Signature 8 3	Date Dec. 10. 200/
_Hee Sook Shin Typed Name of Inventor	Signature Asp	Date Dec. 10. Low
Typed Name of Inventor	Signature	Date
(9) ELECTRONICS AND TELEC Name of Small Business Concern or		RCH INSTITUTE
_Hyung Bog Lee I Typed NameGroup Manager of Intellectu Title of Signatory	By Signature Lee Hywrg of al Property Management Tea	Bog Date Dec. 10, 2001

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which is described and claimed in	☐ PCT International Application No.			filed		
X the attached specification	the specification in application Ser	nal No.		filed		
	(if applicable) and amended on					
I acknowledge the duty to disclose 1 hereby claim foreign priority bene	d and understand the contents of the above information which is material to patentability efits under Title 35, United States Code, 119 r inventors certificate having a filing date be	as defined in Ti (a)-(d) of any fo	tle 37, Code of Federal Re reign applications) for patel	gulations, 1.56. nt or inventor's certi		
Prior Foreign Application(s)					Priority	Claimed
2001 - 72225	Republic of Korea		20/NOV./2001			
(Number)	(Country)	(Day	/Month/Year Filed)		Yes	No
di d						
(Number)	(Country)	(Da	y/Month/Year Filed)		Yes	No
hereby claim the benefit under T	itle 35, United States Cod, 119(e) of any Ur	nited States provi	sional application(s) listed b	elow:		
Application No.	Filing Date	Application No.		Filing Dale		
is material to patentability as define filing date of this application:	ed in Title 37, Code of Federal Regulations,	1.56 which becau				on and the national or DOT interes
ming date of this application.		The William Beech	ne avaliable between the li	ling date of the pric	or application	on and the national of PCT inters
(Application Senal	No.)	(Filing Date		· 		nted, pending, abandoned)
(Application Senal LER OF ATTORNEY: As actions from my agent, and trigglas PRICE (24,514); JO	no.) a named inventor, I hereby appoint ransact all business in the Patent an DHN CLARKE HOLMAN (22,76), 851); IRWIN M. AISENBERG	(Filing Date) the following nd Trademark 69), MARVIN	attorneys (Registratio Office connected there N. R. STERN (20,64)	(Storm No.) to prosect with. HARVE	atus: pater cute this CY B. J. R. SLC	application, receive and act ACOBSON, JR. (20,851); OBASKY (26,421);
(Application Senal EER OF ATTORNEY: As actions from my agent, and tr GLAS PRICE (24,514); JOATHAN L. SCHERER (29,514)	a named inventor, I hereby appoint ransact all business in the Patent an DHN CLARKE HOLMAN (22,76 D, 851); IRWIN M. AISENBERG	(Filing Date) the following nd Trademark 69), MARVIN	attorneys (Registratio Office connected there N.R. STERN (20,64) TILLIAM E. PLAYH DIRECT TELEI	(Ston No.) to prosed with. HARVE (ST., 409); MICHAEL CR (31,409);	atus: pater cute this XY B. J. R. SLC YOON	application, receive and act ACOBSON, JR. (20,851); DBASKY (26,421); S. HAM (45,307)
(Application Senal ER OF ATTORNEY: As actions from my agent, and tr GLAS PRICE (24,514); JC ATHAN L. SCHERER (25 SEND CORRESPONDENCE JACOBSO	a named inventor, I hereby appoint ransact all business in the Patent and DHN CLARKE HOLMAN (22,76), 851); IRWIN M. AISENBERGE TO: DN, PRICE, HOLMAN & STERN	(Filing Date) the following nd Trademark 69), MARVIN	attorneys (Registratio Office connected there N.R. STERN (20,64) TILLIAM E. PLAYI DIRECT TELEI (please use	(St n No.) to prosed with. HARVE D); MICHAEL ER (31,409) ;	atus: pater cute this EY B. J. R. SLC YOON TO: No.) (202)	application, receive and act ACOBSON, JR. (20,851); DBASKY (26,421); S. HAM (45,307)
(Application Senal LER OF ATTORNEY: As sections from my agent, and tr (GLAS PRICE (24,514); JC ATHAN L. SCHERER (28 SEND CORRESPONDENCE JACOBSO PROFESS	a named inventor, I hereby appoint ransact all business in the Patent and DHN CLARKE HOLMAN (22,76), 851); IRWIN M. AISENBERGE TO: DN, PRICE, HOLMAN & STERN HOLMAN & LIMITED LIABILITY COMPANY	(Filing Date) the following nd Trademark 69), MARVIN	attorneys (Registratio Office connected there N.R. STERN (20,64) TILLIAM E. PLAYI DIRECT TELEI (please use	(Ston No.) to prosed with. HARVE (St.); MICHAEL (ST.,409); PHONE CALLS To Attorney's Docket (JACOBSON, P.	atus: pater cute this EY B. J. R. SLC YOON	application, receive and act ACOBSON, JR. (20,851); DBASKY (26,421); S. HAM (45,307)
(Application Senal LER OF ATTORNEY: As LECTOR AS PRICE (24,514); JO LECTOR AS PRICE (25,514); JO LECTOR AS PRICE (25,514); JO LECTOR AS PROFESS AND CORRESPONDENCE PROFESS AND CORRESPO	a named inventor, I hereby appoint ransact all business in the Patent and DHN CLARKE HOLMAN (22,76), 851); IRWIN M. AISENBERGE TO: DN, PRICE, HOLMAN & STERN HOLMAN & LIMITED LIABILITY COMPANY DO Seventh Street, N.W.	(Filing Date) the following nd Trademark 69), MARVIN	attorneys (Registratio Office connected there N.R. STERN (20,64) TILLIAM E. PLAYI DIRECT TELEI (please use	(Ston No.) to prosed with. HARVE (St.); MICHAEL (ST.,409); PHONE CALLS To Attorney's Docket (JACOBSON, P.	atus: pater cute this EY B. J. R. SLC YOON	application, receive and act ACOBSON, JR. (20,851); DBASKY (26,421); S. HAM (45,307)
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(Application Senal LER OF ATTORNEY: As actions from my agent, and tr (GLAS PRICE (24,514); JC ATHAN L. SCHERER (25) SEND CORRESPONDENCE JACOBSO PROFESS 40 Antor(s) name must include at	a named inventor, I hereby appoint ransact all business in the Patent and DHN CLARKE HOLMAN (22,76), 851); IRWIN M. AISENBERGE TO: DN, PRICE, HOLMAN & STERN MICHAEL LIMITED LIABILITY COMPANY DO Seventh Street. N.W. Washington, D.C. 20004 least one unabbreviated first or in	(Filing Date the following ad Trademark 59), MARVING (19,007); W	attorneys (Registratio Office connected there N R. STERN (20,64 VILLIAM E. PLAYI DIRECT TELEI (please use	(St. (St.) to prosect with. HARVE (St.); MICHAEL (ST.); MICHAEL (ST.); PHONE CALLS To Attorney's Docket (JACOBSON, PROFESSIONAL (ST.)	atus: pater cute this EY B. J. R. SLC YOON TO: No) (202) RICE. HO.	application, receive and act ACOBSON, JR. (20,851); DBASKY (26,421); S. HAM (45,307)
(Application Senal LER OF ATTORNEY: As actions from my agent, and tr (GLAS PRICE (24,514); JC ATHAN L. SCHERER (25) SEND CORRESPONDENCE JACOBSO PROFESS 40 Intor(s) name must include at	a named inventor, I hereby appoint ransact all business in the Patent are DHN CLARKE HOLMAN (22,76), 851); IRWIN M. AISENBERGE TO: DN, PRICE, HOLMAN & STERN HONAL LIMITED LIABILITY COMPANY DO Seventh Street. N.W. Washington, D.C. 20004	(Filing Date the following ad Trademark 59), MARVING (19,007); W	attorneys (Registratio Office connected there N.R. STERN (20,64) TILLIAM E. PLAYI DIRECT TELEI (please use	(St. (St.) to prosect with. HARVE (St.); MICHAEL (ST.); MICHAEL (ST.); PHONE CALLS To Attorney's Docket (JACOBSON, PROFESSIONAL (ST.)	atus: pater cute this EY B. J. R. SLC YOON	application, receive and act ACOBSON, JR. (20,851); DBASKY (26,421); S. HAM (45,307)

	FULL NAME	FAMILY NAME	GIVEN NAME		MIDDLE NAME	
	OF INVENTOR	СНО	S00 S	SUN		
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	FULL NAME	FAMILY NAME	GIVEN NAME		MIDDLE NAME	
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	FULL NAME	FAMILY NAME	GIVEN NAME		MIDDLE NAME	
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	ADDRESS	34 Kajong-Dong, Yusong-Gu,	Taejon	F	Corea	

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

, statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under section 1001 of Title 18 of the United States Code; and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201*	SIGNATURE OF INVENTOR 202*	SIGNATURE OF INVENTOR 203*
S. Cho	0 3 9	
DATE DEC. 10. 200/	DATE Dec. 10. 200/	DATE DEC. 10. Lou/

 $\hfill \Box$ Additional inventors are named on separately numbered sheets attached hereto.

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